

# Full Program

Saturday, May 26<sup>th</sup> 2007

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## Evening:

- From 3:00 pm      Registration at the Forum - Helmholtz Centre for Infection Research
- 5:30 pm            Welcome (Klaus Schughart)
- 5:45 pm            (14) Workshop:    **E. Chesler, F. Iraqi, R. Williams, G. Churchill, D. Threadgill, D. Miller**  
Current Status and Prospects of Collaborative Cross
- 6:30 pm            (15) Workshop:    **Prof. GSC**  
Refreshment course in basic sciences for mouse geneticists
- 7:00 pm            Welcome Dinner

Sunday, May 27<sup>th</sup> 2007

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## Morning:

### **Session 1: Genome Architecture**

*Chair: Rob Williams*

- 9:00 am            (16) Plenary talk: **Burkhardt Schraven**  
A logical *in silico* network provides new insights into T-cell signaling mechanisms
- 9:30 am            (17) D. Symer      **Widespread genomic and transcriptional variation in mouse strains due to endogenous L1 retrotransposition**
- (18) D. Ciobanu    **Validation of strong cis - effects in genetic studies of gene expression: What's real, what's not**
- (19) E. Chesler    **Combinatorial analysis of long-range linkage disequilibrium networks and the genetic structure of inbred mouse populations**

10:30 am Coffee Break, Foyer

## **Session 2: Bioinformatics**

*Chair: Xavier Montagutelli*

- 11:00 am (20) Plenary talk: Jonathan Flint  
Genetic basis of complex traits in mice
- (21) P. Schofield CASIMIR; towards unification and sustainability of mouse informatics resources
- (22) D. Shriner Bayes error control for multiple QTL mapping

### **Afternoon:**

12:00 pm Lunch

## **Session 3: Omics**

*Chair: Andreas Zimmer*

- 1:00 pm (23) Plenary talk: Ritsert C. Jansen / Morris Swertz  
Systems biology through systems genetics
- 1:30 pm (24) L. Schalkwyk Gene expression variance: Genetics, environment and sex
- (25) M. Parsons Differences in microRNA expression across common inbred strains using Taqman RT-PCR
- (26) W. Gu Automation of gene identification

2:30 pm Come see my poster introductions

Coffee Break, Foyer and

## **Poster session 1**

- 3:00 pm (28) A. Barth QTL analysis of stress-sensitivity and anxiety
- (29) E. Binder The behavioural response of four inbred strains of mice to stress and antidepressant - a multifactorial design

- (30) G. Burgio Genetic analysis of craniofacial architecture of the mouse using interspecific recombinant congenic strains (IRCS)
- (31) O. Goldmann Analysis of susceptibility/ resistance loci to *Streptococcus pyogenes*-induced sepsis: risk loci on chromosom 17
- (32) K. Haus SNP mapping to narrow genomic regions associated with obesity phenotypes in *Mus musculus* CD-1-derived inbred lines
- (33) N. Hayes Genetic Determinants of the Distribution of Cell Proliferation and Neurogenesis in Diverse Inbred Strains
- (34) U. C. Rogner The HIF beta-homologous Arntl2 is a candidat gene for type 1 diabetes
- (35) M. Korostynski Transcriptional response to morphine in the striatum of inbred mouse strains with different behavioral phenotypes
- (36) Z. Mo Genetic Dissection of the Mouse Dentate Gyrus Using CXB RI Strains
- (37) C. Neuschl Large-scale phenotyping revealed genetic and environmental effects on fatness in a BFM1860 x C57BL/6 reciprocal cross
- (38) R. Overall Strain differences in hippocampal transcript expression in different environments reflect phenotypic responses in adult neurogenesis traits
- (39) M. Piechota Identification of cis-regulatory elements mediating transcriptional response to morphine
- (40) S. Pratt Obesity phenotypes in chromosome 7 congenic strains of C57CL/6J, C57BL/6J-Lipc-/- and *Mus spretus* lineage
- (41) I. Stylianou Differences in DBA/1 and DBA/2 Reveal Lipid QTL Genes

(42) T. Koide      QTL analysis of differences of activities  
in home-cage and open-field between  
KJR and B6 mouse strains

5:30 pm      Tutorial Web QTL: Rob Williams

**Evening:** \_\_\_\_\_

6:00 pm      Snack, Foyer

7:30 pm      Departure from HZI

8:00 pm      Social Event: Guided City Tour Braunschweig

**Monday, May 28<sup>th</sup> 2007**

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**Morning:** \_\_\_\_\_

**Session 4: QTL Mapping**

*Chair: David Threadgill*

9:00 am      (44) Plenary talk: Gary Churchill  
On the subspecific origin of the  
laboratory mouse

9:30 am      (45) H. Wittenburg      Confirmation of the genes encoding  
the biliary cholesterol transporter  
ABCG5/ABCG8 as gallstone  
susceptibility genes from quantitative  
trait mapping for multiple phenotypes  
and investigation of a congenic mouse  
strain

(46) H. Vogel      The contribution of chromosome 1 to  
the obese phenotype of the polygenic  
NZO strain

(47) K. Svenson      Ten traits measured in 43 inbred strains  
mimics diversity found in humans and  
helps find mouse models for metabolic  
syndrome

(48) N. Navarro      Mapping QTLs of mandible shape in a  
heterogeneous stock of mice

10:45 am Coffee Break, Foyer

## **Session 4 continued**

*Chair: Gerd Kempermann*

- 11:15 am
- (49) R. Hall One and two QTL scans for liver fibrosis in intercrosses of inbred mouse strains
- (50) C. Deschepper Detection of linkage of chromosome Y to a complex cardiac trait in recombinant inbred strains (RIS)
- (51) R. Nowakowski Using SNP-association and a strain diversity panel to uncover genetic determinants of structure variation of the dentate gyrus
- (52) K. DiPetrillo Haplotype association mapping of clinical and expression phenotypes identifies a gene regulating albuminuria in mice

### **Afternoon:**

12:30 pm Lunch

## **Session 5: Positional Cloning**

*Chair: Frank Lammert*

- 1:30 pm
- (53) K. Reilly Dissecting the barcode of NF1 tumor susceptibility and variable expressivity
- (54) A. Palmer Functional studies to investigate the role of casein kinase 1 epsilon (Csn1ke) in the locomotor stimulant response to methamphetamine
- (55) R. Korstanje Identification of the mutation and localization of modifier loci for the vacuolated lens mutant, a mouse model of spina bifida and congenital cataracts
- 2:30 pm Come see my poster introductions

Coffee Break, Foyer and

## **Poster session 2**

3:00 pm

- (58) Z. Bochdanovits    **Genome-wide detection of epistatic interactions that affect complex traits in mice and man**
- (59) M. Bogue        **Mouse Phenome Database (MPD)**
- (60) J. Fu            **Genetical Genomics, as a systems biology approach in *Arabidopsis***
- (61) C. Grimm        **Identification of gene regulatory networks using mouse chromosome substitution strains**
- (62) F. Johannes    **A Weibull-mixture model for the mapping of QTL in time-to-failure experiments under selective genotyping**
- (63) Y. Li            **A worm's view to climate changes**
- (64) I. Lu            **From Genotype to Phenotype in the Mouse Genome Informatics (MGI) Database: Integrating Quantitative Trait Loci with the Annotated Mouse Genome**
- (65) A. Manichaikul    **Binary trait mapping in experimental crosses with selective genotyping**
- (66) D. Miller        **Balancing progenitor alleles in the collaborative cross**
- (67) J. Pennock      **SNPit: A new approach to narrowing known QTL using available genomic information**
- (68) C. Neuschl      **RandoMate: a programme to generate random mating schemes for lines of laboratory animals**
- (69) S. Sen           **R/qtIDesign: Inbred line cross study design softwar**

- (70) R. Spörle      **High-throughput high resolution expression analysis in mouse embryos: Resources for systematic functional analysis of genes involved in development and disease**
- (71) M. A. Swertz      **A Molecular Genetics Information System (MOLGENIS) for Genetical Genomics experiments**
- (72) B. Tesson      **Bioinformatics Aspects of High-Throughput Kinome Profiling**

**Evening:**

- 4:30 pm              Departure from HZI
- 5:00 pm              Social Event: Visit of historical Herzog August Library in Wolfenbüttel

**Tuesday, May 29<sup>th</sup> 2007**

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**Morning:**

**Session 6: Mouse Resources & other Organisms**

*Chair: Rudi Balling*

- 9:00 am              (74) Plenary talk: **Harald von Melchner**  
**The European Conditional Mouse Mutagenesis Program**
- 9:30 am              (75) Workshop: **Rudi Balling, Harald von Melchner, Rob Williams**  
**Future opportunities and complementarities: EUCOMM + 1KCC**
- 10:30 am              Coffee Break, Foyer

## **Session 6 continued**

*Chair: Gary Churchill*

- 11:00 am
- (76) G. de Haan    **More dimensions in genetical genomics**
- (77) J. French    **Host susceptibility and chemical safety testing: New approaches to estimate risks in the human population**
- (78) R. Williams    **Expression genetic analysis of the hippocampus of 75 LXS RI strains using the Illumina Mouse-6 array platform**

### **Afternoon:**

12:00 pm            Lunch

## **Session 6 continued**

*Chair: John French*

- 1.00 pm
- (79) K. Schughart    **GeNeSys, German Network for Systems Genetics**
- (80) X. Yu            **A new mouse genetic resource for investigating the role of mtDNA in complex Trait**
- (81) H. Sinha        **Quantitative trait analysis in yeast: Lessons from high-temperature growth**

2:00 pm            Coffee Break, Foyer

## **Session 7: RIS, RIX**

*Chair: John French*

- 2:30 pm
- (82) F. Iraqi        **Body weight and colour, maturity age, litter size and mouse survival at pre and post-weaning traits of collaborative cross mice**

**(83) A. Osadchuk Multiple-QTL approach with epistatic interactions to genetic dissection of quantitative complex traits in the composite experimental design consisting of extended RIX cross and F2 generation of their progenitors strains**

**(84) D. Nehrenberg Mice selectively bred for high aggression reproduce prominent features of emotional dysregulation**

3:30 pm Coffee Break, Foyer

4:00 pm Organizational Meeting

**Evening:**

6:30 pm Departure from HZI

7:00 pm Reception in historical city hall "Dornse", Braunschweig

**Wednesday, May 30<sup>th</sup> 2007**

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**Morning:**

Departure